

CLAIMS

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

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5 A method for attaching a load bearing fabric to a support structure, comprising the steps of:

producing an outer ring;

attaching a segment of load bearing fabric to the outer ring;

producing an inner ring adapted to receive the outer ring;

10 interfitting the inner ring and the outer ring, at least one of the inner ring and the outer ring including a stretching means for stretching the fabric as a result of said interfitting; and

securing the inner ring and the outer ring in interfitted relation to maintain the fabric in a stretched configuration.

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The method of claim 1 wherein the outer ring includes a fabric leg 74 extending in a direction substantially perpendicular to the fabric, said attaching step including attaching the fabric to the fabric leg 74 at a location selected to control the amount of stretch in the fabric.

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The method of claim 2 wherein the inner ring is adapted to receive the fabric leg 74, the inner ring configured such that said interfitting step forces a portion of the fabric to extend in a direction substantially perpendicular to the remainder of the fabric, wherein the fabric is stretched to a desired tension as a result of said interfitting step.

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The method of claim 3 wherein the inner ring includes a channel adapted to receive the fabric leg 74, said interfitting step including inserting the fabric leg 74 into the channel, wherein insertion of the fabric leg 74 into the channel forcing a portion of the fabric down into the channel in a direction substantially perpendicular to the remainder of the fabric.

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The method of claim 4 wherein said attaching step includes selectively varying the attachment location of the fabric to the fabric leg 74 through different regions of the outer ring, whereby the degree of stretch of the fabric resulting from said interfitting step selectively varies in different directions.

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The method of claim 5 wherein said attaching step includes the steps of:
placing the fabric in a mold in a relaxed state; and
molding the outer ring in situ about the fabric, whereby the outer ring and the fabric become an integral combination.

The method of claim 6 at least one of the inner ring and outer ring includes integral locking tabs, said securing step including inserting the outer ring into the inner ring until the locking tabs interlock the inner ring and the outer ring.

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A method for securing a load bearing fabric to a support structure, comprising the steps of:

providing a first ring defining a central opening and carrying a load bearing fabric extending inwardly over the opening the first ring;

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providing a second ring adapted to interfit with the inner ring;

interfitting the first ring and the second ring by relative movement of the first ring and the second ring in a direction substantially perpendicular to the fabric, relative movement of the first ring and the second ring causing a portion of the fabric to extend in the direction substantially perpendicular to the remainder of the fabric, whereby the fabric is stretched to a desired tension upon said interfitting step; and

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securing the first ring and the second ring together after said interfitting step to maintain the fabric at the desired tension.

The method of claim 8 wherein the first ring includes a fabric leg 74 extending in the direction substantially perpendicular to the fabric, the fabric being secured to the first ring along the fabric leg 74.

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The method of claim 9 wherein the second ring includes a portion extending in the direction substantially perpendicular to the fabric and being configured to fit within the opening defined by the first ring, said interfitting step including the step of inserting the

5 portion of the second ring into the opening defined by the second ring, whereby the portion of the second ring engages the fabric and forces a portion of the fabric to extend in a direction substantially perpendicular to the remainder of the fabric.

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The method of claim 10 wherein the second ring defines a channel adapted to

10 receive the fabric leg 74 of the first ring, said interfitting step including the step of inserting the fabric leg 74 into the channel.

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The method of claim 11 wherein a location at which the fabric is attached to the fabric leg 74 varies through different regions of the outer ring, whereby the degree of stretch

15 of the fabric resulting from said interfitting step selectively varies in different directions.

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The method of claim 12 wherein the first ring includes a trim leg extending outwardly from the fabric leg 74.

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20 The method of claim 12 wherein at least one of the first ring and the second ring includes integral locking tabs, said securing step including inserting the outer ring into the inner ring until the locking tabs interlock the first ring and the second ring.

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The method of claim 14 wherein the fabric is secured to the first ring by the step of molding the first ring in place about a peripheral portion of the fabric, whereby the fabric is encapsulated in the first ring.

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An assembly comprising:

a first ring defining a central opening;

a fabric secured to said first ring and extending across said opening;

10 a second ring intersecured with said first ring, said second ring having a portion extending into said opening, said portion engaging said fabric and forcing a portion of said fabric to extend in a direction substantially perpendicularly to the remainder of the fabric, whereby said fabric is stretched to a desired tension; and

means for intersecuring said first ring and said second ring.

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The assembly of claim 16 wherein said first ring includes a fabric leg 74 surrounding said opening, said fabric being secured to said fabric leg 74.

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The assembly of claim 17 wherein said second ring defines a channel, said fabric leg 74 fitted within said channel.

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The assembly of claim 18 wherein said first ring and said fabric are integral,
said fabric being molded in place about said fabric.

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5 The assembly of claim 19 wherein said fabric is secured to said fabric leg 74 at
different locations in different regions of said outer ring to selectively control said portion of
said fabric extending perpendicularly to said remainder of said fabric.

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10 The assembly of claim 20 wherein said first ring includes a trim leg extending
from said fabric leg 74, said trim leg extending in substantial alignment with said fabric.

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The assembly of claim 21 wherein at least one of said first ring and said second
ring includes integral interlocking tabs intersecuring said first ring and said second ring.

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15 The assembly of claim 22 wherein said first ring is rigid, being substantially
nonexpandable.

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An assembly comprising;

a load bearing fabric having a periphery;

20 a first ring secured about said periphery of said fabric, said first ring having an

inner surface facing toward said fabric, said fabric secured to said first ring at said inner surface;

a stretching means mounted within said first ring to engage and stretch said fabric, said stretching means extending along said inner surface and directly engaging a portion of said fabric such that said portion of said fabric is forced to extend in a direction substantially perpendicular to a remainder of said fabric, whereby said stretching means stretches said fabric to a desired tension; and

securing means for intersecuring said first ring and said stretching means to maintain said fabric at said desired tension.

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The assembly of claim 24 wherein said stretching means is further defined as a second ring.

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The assembly of claim 25 wherein said inner ring defines a channel opening in a direction substantially perpendicular to said remainder of said fabric, said first ring being fitted within said channel, whereby said portion of said fabric is forced to extend in said direction perpendicular to said remainder of said fabric.

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The assembly of claim 26 wherein said first ring is substantially L-shaped having a fabric leg 74 and a trim leg, said fabric leg 74 extending in said direction substantially perpendicular to said remainder of said fabric, said fabric leg 74 defining said inner surface.

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The assembly of claim 27 further comprising a support structure, said second being secured to said support structure.

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5 The assembly of claim 28 wherein said first ring and said fabric are integral, said fabric being molded in place about said fabric.

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10 The assembly of claim 29 wherein said fabric is secured to said fabric leg 74 at different locations in different regions of said first ring to selectively control said portion of said fabric extending in said direction perpendicular to said remainder of said fabric.

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The assembly of claim 30 wherein at least one of said first ring and said second ring includes integral interlocking tabs intersecuring said first ring and said second ring.

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15 The assembly of claim 31 wherein said first ring is rigid, being substantially nonexpandable.